

Lomatium serpentinum (M.E. Jones) Math.
desert-parsley
Apiaceae (Parsley Family)

Status: State Sensitive

Rank: G4S2

General Description: Parsley-scented perennial with a thick and woody taproot and branching caudex; usually 6 to 16 in. (15 to 40 cm) tall; leaves oblong and glabrous, bright green, clustered at the base, and dissected into numerous very small segments lying in the same plane; involucre of narrow bractlets; umbels 10 to 17 rayed, the fruiting rays unequal, umbellets many flowered, the flowers bright yellow; fruiting pedicels 3 to 15 mm long, fruits oblong and glabrous, 5½ to 10 mm long, wings at least half as wide as the body, the oil tubes solitary in the intervals.

Identification Tips: *Lomatium serpentinum* is most closely related to *L. halli*. These species are most easily distinguishable by their stems: *L. serpentinum* is stemless, and *L. halli* has an obviously leafy stem.

Phenology: Flowers from April through July.

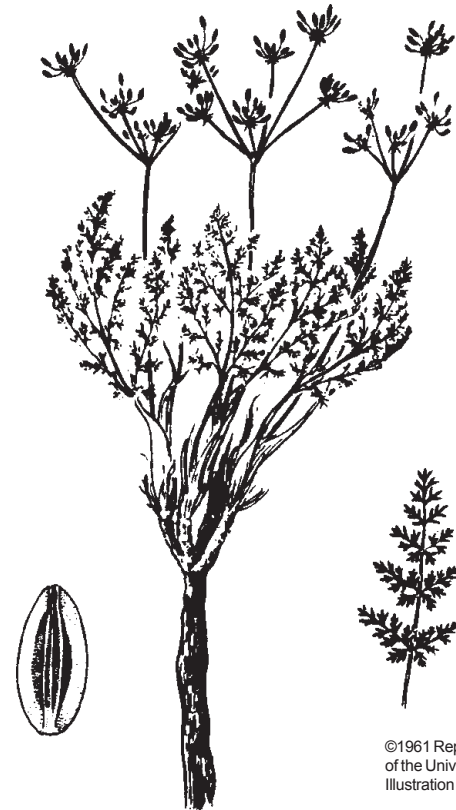
Range: A regional endemic, this species grows along the Snake River and its tributaries in western Idaho, eastern Oregon, and southeastern Washington in Columbia, Grant, and Asotin counties. Historically, it has been found in Walla Walla and Whitman counties, also in Washington.

Habitat: This species is found at lower elevations just above river level growing in moderately deep sandy or rocky soil. It grows mostly within rock crevices or clefts on open moderate to steep slopes. Sites in Washington are located in shady areas on old flood plains, atop granite outcrops, on basaltic ledges along rapids, and on basalt talus. It is usually found in sparsely vegetated areas with no overstory. Associated species include blue-bunch wheatgrass (*Agropyron spicatum*) and Sandberg's bluegrass (*Poa sandbergii*).

Ecology: Although this species may be threatened by grazing, its rocky habitat makes accessibility by grazing animals somewhat limited.

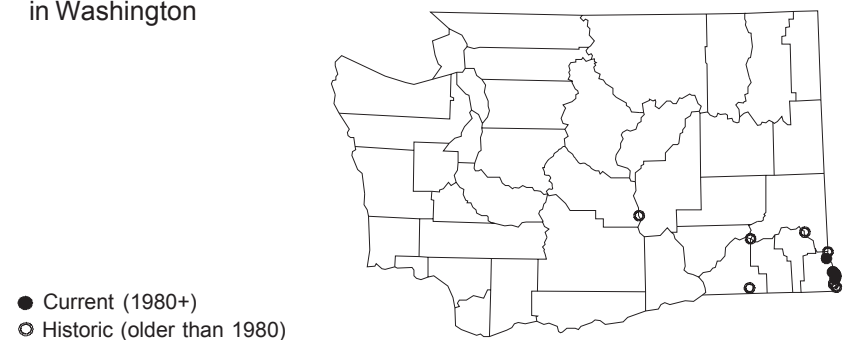
State Status Comments: Reported only in Washington, Idaho, and Oregon, the range of this species is relatively small, accounting for its sensitive status.

Lomatium serpentinum
desert-parsley



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Known distribution of
Lomatium serpentinum
in Washington



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2003 Produced as part of a cooperative project between the Washington Department of Natural Resources, Washington Natural Heritage Program and the U.S.D.I. Bureau of Land Management. Persons needing this information in an alternative format, call (360) 902-1600 or TTY (360) 902-1125.

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Inventory Needs: Additional inventory in Washington is needed. Sites where the species occurs should be occasionally monitored to determine population dynamics.

Threats and Management Concerns: Disease, predation, collecting, grazing, timber harvest, destruction of habitat, and curtailment of range are threats to this species. Damming of the Snake River has destroyed much of *L. serpentinum*'s habitat downstream from Clarkston, Washington. Populations near the Snake River Canyon may be threatened by agricultural development.

Comments: Soltis et. al. conducted a study in 1997 comparing genetic diversity in populations of three rare species of *Lomatium* with three more widespread congeners. *L. serpentinum* was included in this study. The three rare species of *Lomatium* examined in the study were found to have significantly lower levels of intrapopulational genetic diversity than did the more widespread *Lomatium* species. Differences in genetic diversity may result from historical events and differences in population size. Genetic drift and the presence of genetic bottlenecks in the distant past may also be responsible for the maintenance of low levels of variation in some rare species.

References:

Hitchcock, C.L. and A. Cronquist. 1973. *Flora of the Pacific Northwest*. University of Washington Press, Seattle, WA. 730 pp.

Kennison, J.A. and R.J. Taylor. Status report for *Lomatium serpentinum*. Biology Department, Western Washington University, Bellingham, Washington, 1979.

Soltis, P.S., D.E. Soltis and T.L. Norvell. Genetic diversity in rare and widespread species of *Lomatium* (Apiacea). *Madrono*, Vol 44: (1) 59-73. Pullman, Washington, 1997.

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